Pheasant Facts

...and Fancies

By Chet Hart

The ring-necked pheasant isn't native to California, or to other areas outside Asia and the Middle East. But it warrants the status of a naturalized citizen from having been proven a desirable addition to our bird species over a period of more than 100 years. Over that time many questions and what amounts to folklore or misunderstandings about this bird have developed. We'll try to set some of those straight, although I've learned over the years that it is dangerous to say "always" or "never" about pheasants.

Where From—Game Farm or Wild?

Pheasants were first introduced successfully in North America in 1881 with Chinese ringnecks trapped near Shanghai and released in the Willamette Valley of Oregon.

The introduction was so successful that California, among other states, obtained wild-trapped birds from Oregon, starting in 1889. Their release established our first pheasant populations in several locations in northern and central California. These local populations didn't expand much with the mostly dry-farmed agriculture of that era. However they later flourished in many areas of the state with the advent of irrigated field crops and the favorable farming practices used then. Spring and early summer moisture is essential for pheasant production in our mainly Mediterranean climate, which can come from irrigation if not supplied by unusual spring rainfall.

But it takes more than that. In the last 25 or 30 years, pheasants have essentially disappeared from most of these cropland habitats in California due to the onset of extremely clean and intensive farming practices. But that is another story.

Agricultural Bird Needing Cereal Grain Food?

Pheasant use of cropland habitat, especially in the Midwest, led to myths that they were an agricultural bird that required cereal grain food. Although these beliefs were disproved at least 50 years ago, they still persist. Ringnecks are adaptable opportunists, within limits, and will readily eat grain food when available. But they don't need grain food—we have had dense ringneck numbers living almost entirely on leaves and florets of ladino clover, with some weed and grass seeds. We now know that there are other locations in the US where pheasants are doing or have done well in the absence of grain.

How Long Do They Live?

Pheasants are inherently short-lived birds. During a long-term study in Sutter Basin (Sacramento Valley), we captured, aged, and banded more than 19,000 wild pheasants, which enabled determining their mortality rates. Annual rooster deaths averaged about 80 percent, and hens, 60 percent. This meant that from an annual crop of ringnecks, about 96 percent of the roosters and 84 percent of the hens would die by the end of their second year, but mostly in the first. A very few roosters made it to 4 years old, but none past 5; one hen lasted into her sixth year. But these older birds mainly are just novelties—they make up such a small proportion of the breeding population that they are insignificant in population dynamics.

What do they die from? Of course with roosters it's largely from hunting. High numbers of nesting hens can be killed in mowing alfalfa or other hay crops. In regions with severe winters, deep snow and ice can affect survival, especially making pheasants more subject to predation. But even in California's mild winters, ringnecks don't live significantly longer—they just aren't genetically programmed to be longer-lived.

This is why pheasant numbers can fluctuate so much so quickly, according to annual reproductive success. And when someone tells you that they have had the same rooster crowing in the same spot for a number of years, odds are that this has been several different roosters in sequence attracted to a good crowing territory location.

How Many Hatches?

To compensate for their high mortality rate, pheasants have a high reproductive potential. Initial nests typically averaging about a dozen eggs. But reports of "second and third hatches" are misinterpreting what the observer sees. Chicks may hatch and be seen from April into August in California. But these chicks typically come from the first nest the hen has successfully incubated. Hens are persistent re-nesters and usually will make up to three nesting attempts when their nests are depredated or otherwise destroyed. However, hens essentially never rear more than 1 brood per year.

What About Chicks?

Pheasant chicks are vulnerable in that they are precocial and insectivorous. This means they have to catch their own insect food, often undergoing hazards to do so. They are entirely dependent on insect and other invertebrate food for the first several weeks of life before phasing over mainly to seeds and other vegetable fare. This means that in pheasant management, to grow pheasants you first have to learn how, when and where to grow "bugs" to ensure good chick survival. We've learned some "tricks" for that, but again, that's another story.

Old or Young Rooster?

Hunters (or the cook) often want to know whether they've bagged old or young roosters—this can be a factor in how best to cook them. For wild pheasants there is no way of aging that is 100 percent accurate. Our southerly latitude and warmer springs lead to earlier nesting, and our milder falls to later hunting seasons. The result is that here, the young-of-the-year in the bag can be as much as about two months (perhaps 50 percent) older than in most other regions of the U.S. and they can mature appreciably in that extra two months. For the "amateurs" at this, spur characteristics are still the easiest measure of age and about as good as anything. Adult roosters typically have longer, more conical, and glossier spurs, often white-tipped. Juvenile spurs are usually shorter, flatter and more quickly tapering in shape, and less polished. If the rooster is relatively large and long-tailed, and has the adult spur characteristics, odds are good that it is an old bird.

Wild or Pen-reared?

But how do you know if it's a wild bird? Of course the licensed game bird clubs, and many of the community pheasant hunting areas, rely primarily on releasing pen-reared pheasants. These commercially-reared birds typically have a distinctive tell-tale sign. To control pecking and cannibalism in close quarters, the breeders commonly install plastic blinders ("specs") held in place by a pin through the nares (nostrils). These are cut off before release. But if there is a round hole through the bird's upper bill near its base, it isn't wild and it's almost surely a young bird.

Noise vs. Hunting Success?

Some hunters evidently aren't aware that pheasants have extremely acute hearing. This may not be an appreciable factor in hunting success in the first day or two of the hunting season, with the new crop of inexperienced roosters. But after then the remaining cocks have quickly earned their PhDs in survival. For hunting success then it becomes very important to be as silent and stealthy as possible. Near or at hunting areas, don't slam vehicle doors closed, yell at dogs or to hunting companions, or do anything else that audibly signals your presence—if you're noisy, you might be astounded at the number of pheasants already sneaking out the other end of the field or, now alerted, keeping safely well ahead of you.

Short vs. Longer Seasons?

California has a reasonably long but prudent hunting season, but still not as long as in most other states. For those concerned with length of season, there has never been a documented case of overharvesting roosters by regulated hunting.

Pheasants are polygamous, with dominant roosters normally having as many as 8 - 10 hens in their harems, which they attract by crowing. Tests were conducted in California, in which increasing numbers of hens were put in a pen with a single rooster. There was no decline in egg fertility until the number of hens reached about 50. (At 100 hens, the most noticeable results seemed mainly tired but contented roosters). Hens retain sperm and can lay an entire clutch of

Blinders used to protect captive-raised pheasants leave evidence that help distinguish the birds from their wild counterparts. DFG file photos.

fertile eggs from one mating. So proportionately few roosters are needed for breeding purposes.

As to how many roosters are left after the California hunting season; there typically are one or more roosters remaining per five hens in wild populations on heavily-hunted areas. This has been demonstrated by hundreds of "sex ratio counts" (a standard monitoring tool for wildlife managers) taken after the hunting season, over many years. The record low was about one rooster per 20 hens, documented on an intensively-hunted study area (with a 10-day season). However, later counts showed a return to the more typical one male/five females. Apparently the roosters had been pushed out by heavy hunting pressure but returned after the season closed.

Increasing the length of the hunting season doesn't lead to proportionate increases in numbers of pheasants killed because the "law of diminishing returns" comes into play—especially on public hunting areas. The longer roosters are hunted, the more wary and elusive they become, generally requiring more time and effort to bag one. The more casual hunters tend to drop out of the increasingly problematic chase relatively early. But many dedicated and experienced hunters (and dogs) relish these later, less-crowded hunting conditions and the challenge of outwitting some of these "educated" roosters. These successful events usually are the most rewarding highlights of the season, told and retold.

Some may feel that a longer season can lead to excessive hen losses from being accidentally shot. However, since the majority of the pheasant harvest occurs on opening weekend, and through the following weekend, the incidence of accidental hen shooting probably declines as the season progresses. I'm unaware of any evidence that extending the season leads to an appreciable increase in numbers of hens killed.

In fact, during the early years of the Sutter Basin study (in which we banded over 19,000 wild pheasants), we gathered data on the number of wild hens shot accidentally, as well as the number of hens killed by hunters legally on licensed pheasant clubs in the study area. As luck would have it, our data gathering was followed by three years of pheasant seasons that allowed for one hen in the 10-bird bag. When we analyzed all the data, and we probably had the most and best ever on this issue, we had one of those initially puzzling but intriguing situations in wildlife research when you think you are adding 2 + 2 but it won't come out to 4.

Although appreciably more wild hens were killed during the legal hunting period, this evidently was not enough to increase their total annual mortality. Hen deaths due to hunting increased several percentage points, but there was a corresponding decrease in non-hunting losses, with the overall mortality remaining essentially the same (about 60 percent annually). This has been termed "compensatory mortality" in wildlife management, the principle that mortality factors aren't necessarily cumulative. Instead, mortality for some individuals increases the chance of survival for other individuals.

Benefits of Longer Seasons

This may sound like reverse logic to some, but a fairly long season with the rewards of more hunting opportunity can be an important conservation measure for pheasants, as it has been for waterfowl in maintaining privately-owned wetland habitat. The pheasant problem is a habitat problem. We have spent nearly 20 years learning how to manage habitat to produce more ringnecks from non-croplands, and field testing to make sure the method works (see article on page 26). However, the DFG is limited in how much it can do to implement this directly, other than on its own wildlife areas.

There is essentially no hope for high pheasant numbers to return to California's intensively-farmed agricultural lands that have evolved to non-habitat for ringnecks. Perhaps the main potential is in enhancing habitat on private lands such as former croplands taken out of production, or duck or other hunting clubs. Here the limited habitat management can be done most feasibly by landowners, lessees, or other private effort, with DFG in an extension service, advisory role.

However, we've learned over the years that most private landowners aren't interested in pursuing habitat management programs for wildlife on their lands without some incentive or benefit to them, which is reasonable and logical. Simply put, these kinds of benefits accrue from longer seasons—short seasons preclude them, making the result for landowners not worth the effort. So arguments for shorter pheasant seasons are for "shooting ourselves in the foot," especially when there is no substantiated biological need for them.

Similar reasons apply to pheasant hunters having trained hunting dogs for retrieving. Pheasants are notorious for the difficulty of recovering crippled birds, those winged but with two sound legs especially so. But back in the era of 10-day pheasant seasons, many early-season hunters told me they could not justify the expense and problems of keeping a hunting dog year-round for the limited hunting opportunity with such a short pheasant season. I don't have any figures on it, but my perception is that we see significantly more dogs with pheasant hunters now with longer seasons. This can greatly reduce the waste of un-recovered cripples. In addition, a good hunting dog can add immensely to the success and enjoyment of pheasant hunting.

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